A PRAGMATIC APPROACH TO BUILDING A FIELD AND DOING STS

Interview with professor emeritus Knut H. Sørensen

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Introduction

The first scholar featured in our anniversary issue is professor emeritus Knut H. Sørensen. Sørensen has a decades long history working in science and technology-studies and played a key role in establishing the Centre for Technology and Society at the Department of interdisciplinary studies of culture (KULT) at NTNU. Sørensen is one of several key contributors to STS and in this interview, we will draw insights from his long career and explore STS as a changing field.

Sørensen has witnessed the starting point, the development, as well as many changes in this field throughout his career. In this interview he reflects on how the field has developed and how it is a story about building STS institutions, and the many strategic choices it involves. We are reminded of how the making of science involves specific people, doing specific things at specific times and places. It is a chance to see behind a name put in as "standard citation" and see a person who combined ambition and pragmatism with hard work to make something happen. Revisiting the history of our field is also a chance to remind ourselves of how different things could have turned out; if they hadn't come across that specific paper or hadn't received funding at that time.

In this interview we will touch on important contributions, about being pragmatic with external funding and research topics, how STS has changed as a field, the importance of advising and investing in students and what life is like now as an emeritus.

Vying for external funding with pragmatic constructivism

During his career Sørensen has studied a wide range of topics including sustainability transitions, gender balance among professors, gender and technology, innovation and technology policy, ICT and the internet, universities, working life, the engineering profession, and interdisciplinarity. These topics touch on several core themes in STS, yet also represent a highly diverse set of research interests. While they do reflect Sørensen's natural curiosity, he explains this variety in research topics as a pragmatic approach to research and the need for external funding to build an STS centre.

Because the need for acquiring external funding meant that you needed to have a certain flexibility in terms of research topics. So it was not a situation where I, for example, could pursue my particular interests. It was a situation where the interest had to be adapted to the funding opportunities.

I think our department would not have existed without that kind of entrepreneurial effort to acquire external funding, which then implied a kind of flexibility in terms of what kind of research at the end that you pursue.

Sørensen and colleagues discovered that STS was a productive field for applying for external funding. When we ask why, he states the development of technology as something that bonded engineers and scientists, and STS thus provided tools for analysing these kinds of relationships.

I think the most important part is that with STS, you ask questions about development of technology and, to some extent, science that also are of interest to engineers and scientists.

In addition, of course, STS provides tools for analysing these kinds of relationships. But I think that the ability to formulate questions that would resonate with engineers and scientists sitting on the program boards in the research council was a vital thing.

Meanwhile, the continuous search for external funding meant that Sørensen and his colleagues had to be flexible and move on to new things even though he would have liked to stay longer with some research topics. One such area, he points out, was the research on cars he and colleagues did in the early 1990s, about how the adoption of cars shaped society and our everyday lives. Looking back, he sees it as a possible trajectory he missed out on:

We were actually very early on in focusing on mobility. But we didn't take it far enough to get the attention. So then that was left to somebody else.

While flexibility has its advantages, it also entails certain costs. It is hardly surprising for an STS audience to see the research institution develop in tandem with research funding and organization. Across the many topics, Sørensen considers "pragmatic constructivism" to be a recurring feature in his research combined with a strong empirical focus.

It means being not very principled in one or the other way of understanding

constructivism. So, it's, what should we say, a softened version or amalgamation of dominant theories like SCOT and ANT. So the pragmatism is in pursuit of the empirical evidence and less in pursuing particular theoretical assumptions.

In line with STS culture, such strong empirical focus for the department has become partially a legacy of Sørensen and the strategies chosen for funding and building the department.

The growth of STS as a field and the value of new generations

STS has grown much since its beginnings in the late 1970s and 1980s. For someone like Sørensen who has followed the field through almost 40 years, the growth of the field is what stands out as the biggest change – while noting that perhaps there hasn't been as much theoretical development.

The obvious change is the growth. When I attended my first meeting in the Society for the Social Studies of Science, I think there was something like 100 participants. And the more recent conferences are going from 2,000 to 3,000. The number of academic centres and departments at STS has also grown substantially.

Sørensen experiences that STS has evolved into a community where people explore science and technology from a range of different positions, while also noting that the theoretical frameworks developed in early STS has largely remained relevant and have been a key factor contributing to the growth of STS in their capacity to bring together people from diverse fields who share a common interest in the subjects that captivate those involved in STS.

Another aspect is that STS kind of perspectives have diffused into a lot of other settings. That means also that there's a lot of people attending STS conferences that do not necessarily have an STS identity. But they go there because that is a place where they can present research on science and technology.

The STS field captures a wide range of research topics and allows people from other disciplines to present their research that is related to science and technology. However, Sørensen describes

the current scenario as a generation shift, where the initial creators of STS are retiring, and their active participation is diminishing. On the other hand, PhDs and master students play an important role for the growth of the field. In addition, this opens for younger thoughts and perspectives to emerge. NJSTS organized a panel on young scholars' perspective on STS exactly because we want young scholars to decide the field, to avoid only established voices deciding the future of the field.

The competence of graduates with higher education is considered to play a central role in innovation activities (Sørensen, 2022, p. 165). During his career Sørensen has played a central part in supervising. In fact, he has supervised 31 master students and 55 PhD candidates, and supervision has been his main interest as educator. While acknowledging the innovation potential of PhDs, Sørensen believes that one does not necessarily have to be young to generate new ideas.

Some people argue that you have to be young to think new thoughts. I'm not completely convinced about that from my experience. And I don't think the empirical evidence is very strong on that either.

Resonating in his answer is the rejection of the "the genius scientist", which often is tied up to notions of young singular minds pushing the field forward. In his work, but especially in his advising, Sørensen has always pushed for a collaborative approach where sharing ideas and insights should be done freely, having little qualms sharing his own concepts and ideas with graduate students.

Domestication research – a key contribution and coincidence

One of the key contributions of Sørensen is his work on domestication theory. Domestication is a user-oriented theory about how technology is appropriated into everyday life. The approach highlights the active role users have in shaping technology, and how important context for use and practice is in defining what a technology "is" and "does". One of Sørensen's most cited works is "Making technology our own: domesticating technology into

everyday life" (with Merete Lie), and his interest in domestication reflects a longstanding interest in use and users.

Sørensen was looking for new ways to get a better grasp of the user – technology relationship. And then, almost by coincidence, he came across an interesting paper by Silverstone and the concept of domestication.

The reason why I became interested in domestication was that I was interested in studying the use of technology. I had a long-standing interest in the relationship between technology and work, in working life but also in housework. But I was also a bit dissatisfied with what was then the current understanding of that relationship. So, together with some other colleagues, we were searching for ways to get a better grasp on the user – technology relationship.

And then I, by accident, discovered an unpublished working paper by Silverstone and others at a table at a conference, It introduced the concept of domestication. First, we sort of appropriated that version of domestication, but we increasingly became a bit dissatisfied with parts of that approach. So, we revised the media studies version of Silverstone and colleagues' to adapt it to STS.

For Sørensen, this was a starting point for using and developing the concept of domestication in an STS manner,

I think that the twist we made on the domestication concept was to make it STS-like. Drawing also on STS understanding of technology and the social relations related to technology. I think many of the main features are similar, in-particular the insistence on users' agency in relation to technology.

Domestication has grown into a versatile concept used to study a range of different technologies, from automated milking systems, households' energy use, decommissioning of oil tanks, electric scooters, and information technology. This illustrates the usefulness of the concept in its STS articulation that goes far beyond its initial conceptualization as a way to understand household's media use.

Emeritus life as decoupled freedom

Sørensen retired January 1, 2021. In the closing of the interview, he reflected on his new role as a professor emeritus and what it entails, and particularly on how the emeritus position means he has more freedom than ever, while also being less tied into the everyday life of the department.

As emeritus Sørensen is formally freed of all obligations to the department and at liberty to pursue whatever projects he sees fit, a way of doing research that is easily idealized when the calendar is fully booked and time to do actual research is scarce. However, as he points out, this also means he has to work harder to remain part of the scientific community around him.

So, the retiring is of course a life changer. It means that you are a new person. You are to some extent disconnected from all the stuff that you used to be linked up with. So that means there is more work to be done, that you have to do the linking. There is much less sort of automatism in what you are supposed to do.

Sørensen explains how his new role is characterised by less expectations and how this affects his relationships with other persons/individuals. Reflecting on what expectations means Sørensen state that:

Having expectations means that there are some kind of links to some other actors. So, when there are no expectations, that means also that the links are much weaker. So sometimes you could say that freedom is overrated. Because as the Janis Joplin's song goes, "freedom is just another word for nothing left to lose". There is something about that. But it doesn't worry me that much at the moment.

Retirement for professors is perhaps a bit unusual, in that so many choose to continue their work as emeritus/emerita. One motivation Sørensen for continuing working is a wish to "wrap up" and tie together a lifetime of research.

I know some retired professors prefer to chop wood or do something completely different. I do chop a little wood during the summer, but not that much. I think it's a widespread academic disease to not let go. So, what am I doing? One way of thinking about it is that I'm trying to do some wrapping up.

I think I will spend some time in the search for commonality in previous work by returning to the questions you asked earlier, that what should I have learned from delving into very different research areas?

When asked about his current projects, Sørensen did however not seem to be "wrapping up", nor does he appear alone, instead he has been making new work and setting up new tracks of research with his research on universities with Sharon Traweek (Sørensen and Traweek 2022).

At the moment I'm pursuing university studies. I did publish a book with Sharon Traweek. We have organized a lot of sessions and conferences. I think we hosted something like 40 plus papers in 2023. We had five sessions in the 4S Honolulu meeting, which is probably a kind of record. So there is a kind of resonance.

It is also, I think, politically important to do studies of universities. We see more or less every day how little university leadership actually knows about what is going on in the different parts of the university. So somebody has to try to explain a bit more about that.

Closing remarks:

Sørensen's reflection on retirement can possibly bring some solace to current scholars who feels like "too little butter scraped over too much bread" as Bilbo articulated it in Lord of the Rings. When the calendar is filled to the brim, it may (rightfully) be difficult to tap into the freedom we have as academics. On one hand, these busy schedules do limit us from doing the research we are passionate about; on the other hand, such heavy demands also manifest the expectation from others and the connection with other actors which we may appreciate.

With STS continually growing, the field brings together more and more people from diverse fields and non-Western countries to explore science and technology and STS grows ever more branches and sprout new leaves of inquiries over time. We hope to continue to support the growth of this towering tree, making sure that it is not just about reaching the tallest top, but also to provide shade for future scholars.

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